

AMENDMENTS TO THE CLAIMS

The claims in this listing will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An image sensor test system ~~bringing~~ configured to bring input/output terminals of an image sensor into contact with a contact of a test head, ~~emitting the image test system configured to emit~~ light to a light receiving surface of ~~[[said]] the image sensor from a light source and, while doing so, inputting/outputting electrical signals between the contact of [[said]] the test head and [[said]] the image sensor so as to test the optical properties of [[said]] the image sensor, the image sensor test system comprising:~~

~~said image sensor test system provided with at least~~

a pre-test sensor stacker ~~for storing~~ configured to store image sensors before testing[.];

a ~~loader-use inverting means for inverting~~ first inverter configured to invert an image sensor supplied from ~~[[said]] the pre-test sensor stacker[.];~~

a contact arm ~~for picking up and moving~~ configured to pick up and move the ~~[[an]] inverted state image sensor inverted by said loader-use inverting means~~ the first inverter, the contact arm being configured to bring and bringing input/output terminals of the inverted state image sensor into electrical contact with a contact of ~~[[said]] the test head[.];~~

an attachment portion configured to attach the light source to the image sensor test system so as to place the light source beneath the image sensor[[,]];

an unloader use inverting means for inverting a second inverter configured to invert an image sensor after testing; finished being tested; and

a plurality of post-test sensor stackers for storing configured to store tested image sensors inverted by the second inverter ~~said unloader use inverting means~~.

2. (Currently Amended) [[An]] The image sensor test system as set forth in claim 1, wherein each of ~~said loader use inverting means and said unloader use inverting means can~~ the first and second inverters are configured to simultaneously invert two or more at least two image sensors.

3. (Currently Amended) [[An]] The image sensor test system as set forth in claim 1, wherein each of the first and second inverters comprises ~~said loader use inverting means and said unloader use inverting means has~~ at least a first holder [[able]] configured to hold an image sensor and a rotation mechanism for making said configured to rotate the first holder rotate.

4. (Currently Amended) [[An]] The image sensor test system as set forth in claim 3, wherein [[said]] the first holder [[has]] comprises a suction nozzle ~~able to hold configured to hold~~ an image sensor by applying suction.

5. (Currently Amended) ~~[[An]]~~ The image sensor test system as set forth in claim 4, wherein ~~[[said]]~~ the first holder is exchangeable with another first holder having a suction nozzle different from the suction nozzle of ~~[[that]]~~ the first holder, the another first holder corresponding to a so as to match with the size or shape of ~~[[said]]~~ an image sensor.

6. (Currently Amended) ~~An~~ image sensor test system ~~as set forth in claim 3,~~ configured to bring input/output terminals of an image sensor into contact with a contact of a test head, the image test system configured to emit light to a light receiving surface of the image sensor from a light source and, while doing so, inputting/outputting electrical signals between the contact of the test head and the image sensor so as to test the optical properties of the image sensor, the image sensor test system comprising:

a pre-test sensor stacker configured to store image sensors before testing;

a first inverter configured to invert an image sensor supplied from the pre-test sensor stacker;

a contact arm configured to pick up and move the inverted image sensor inverted by the first inverter, the contact arm being configured to bring input/output terminals of the inverted image sensor into electrical contact with a contact of the test head;

a second inverter configured to invert an image sensor after testing; and

a plurality of post-test sensor stackers configured to store tested image sensors inverted by the second inverter,

wherein each of the first and second inverters comprises at least a first holder configured to hold an image sensor and a rotation mechanism configured to rotate the first holder, and

wherein [[said]] the rotation mechanism [[has]] comprises a pinion gear supporting-said which supports the first holder and a rack gear intermeshing which intermeshes with [[said]] the pinion gear and converts linear force supplied to [[said]] the rack gear to rotational force so as to ~~make-said rotate the~~ first holder rotate.

7. (Currently Amended) An image sensor test system as set forth in claim 3, configured to bring input/output terminals of an image sensor into contact with a contact of a test head, the image test system configured to emit light to a light receiving surface of the image sensor from a light source and, while doing so, inputting/outputting electrical signals between the contact of the test head and the image sensor so as to test the optical properties of the image sensor, the image sensor test system comprising:

a pre-test sensor stacker configured to store image sensors before testing;

a first inverter configured to invert an image sensor supplied from the pre-test sensor stacker;

a contact arm configured to pick up and move the inverted image sensor inverted by the first inverter, the contact arm being configured to bring input/output terminals of the inverted image sensor into electrical contact with a contact of the test head;

a second inverter configured to invert an image sensor after testing; and

a plurality of post-test sensor stackers configured to store tested image sensors inverted by the second inverter,

wherein each of the first and second inverters comprises at least a first holder configured to hold an image sensor and a rotation mechanism configured to rotate the first holder, and

wherein each of said loader use inverting means and said unloader use inverting means the first and second inverters further [[has]] comprises a second holder able to configured to hold an image sensor after inversion, the and said second holder is formed being provided with a recess [[able]] configured to hold [[said]] the image sensor.

8. (Currently Amended) [[An]] The image sensor test system as set forth in claim 7, wherein [[said]] the second holder is exchangeable with another second holder formed provided with a recess different from the recess formed provided in [[that]] the second holder, the another first holder corresponding to a so as to match with the size or shape of [[said]] the image sensor.

9. (Currently Amended) An image sensor test system as set forth in claim 1, configured to bring input/output terminals of an image sensor into contact with a contact of a test head, the image test system configured to emit light to a light receiving surface of the image sensor from a light source and, while doing so, inputting/outputting electrical signals between the contact of the test head and the image sensor so as to test the optical properties of the image sensor, the image sensor test system comprising:

a pre-test sensor stacker configured to store image sensors before testing;

a first inverter configured to invert an image sensor supplied from the pre-test sensor stacker;

a contact arm configured to pick up and move the inverted image sensor inverted by the first inverter, the contact arm being configured to bring input/output terminals of the inverted image sensor into electrical contact with a contact of the test head;

a second inverter configured to invert an image sensor after testing; and

a plurality of post-test sensor stackers configured to store tested image sensors inverted by the second inverter; and

~~further provided with an imaging means~~ able device configured to obtain an image of a back surface of ~~[[said]]~~ the image sensor after being inverted by ~~said loader-use inverting means~~ the first inverter and before being supplied to ~~[[said]]~~ the test head.

10. (Currently Amended) ~~[[An]]~~ The image sensor test system as set forth in claim 9, ~~further provided with comprising a judging means for judging~~ device configured to judge an emission pattern of light ~~emitting~~ emitted from ~~[[said]]~~ the light source and an input pattern of electrical signals input from a contact of ~~[[said]]~~ the test head based on image information obtained by ~~[[said]]~~ the imaging ~~device means~~.

11. (Currently Amended) ~~[[An]]~~ The image sensor test system as set forth in claim 9, ~~further provided with selecting means for selecting~~ comprising a selector configured to select a tested sensor stacker ~~for unloading said~~ to unload the image sensor ~~[[to]]~~ from among ~~[[said]]~~ the plurality of tested sensor stackers based on device type information obtained by ~~[[said]]~~ the imaging ~~means device~~ and classification information of the test results.

12. (Currently Amended) A test method for an image sensor which brings input/output terminals of an image sensor into contact with a contact of a test head, emits light to a light receiving surface of ~~[[said]]~~ the image sensor from a light source, and, while doing so, inputs and outputs electrical signals between the contact of ~~[[said]]~~ the test head and ~~[[said]]~~ the image sensor so as to test the optical properties of ~~[[said]]~~ the image sensor, the test method comprising: ~~at least~~

~~a first inversion step of inverting an image sensor before testing,~~

~~a test step of bringing the inverted state image sensor into electrical contact with a contact of [[said]] the test head and emitting light on a light receiving surface of [[that]] the inverted image sensor from a light source to test the optical properties of [[that]] the inverted image sensor, and~~

~~a second inversion step of inverting the tested inverted state image sensor.~~

13. (Currently Amended) ~~[[A]]~~ The test method for an image sensor as set forth in claim 12, further comprising holding and simultaneously inverting ~~two or more~~ at least two image sensors ~~[[in]] during inverting the image sensor before testing and the inverting the tested image sensor~~ said first inversion step and said second inversion step.

14. (Currently Amended) ~~[[A]]~~ The test method for an image sensor as set forth in claim 12, further comprising, ~~before said test step, an imaging step of~~ obtaining an image of an image sensor to obtain device type information before testing the inverted image sensor.

15. (Currently Amended) [[A]] The test method for an image sensor as set forth in claim 14, further comprising a ~~judgment step of~~ judging an emission pattern of light emitted from [[said]] the light source and an input pattern of electrical signals input from a contact of [[said]] the test head based on the device type information obtained ~~at said~~ in obtaining the image of the image sensor imaging step and,

in testing the inverted image sensor ~~said test step~~, emitting light to the light receiving surface of [[said]] the image sensor in accordance with [[said]] the emission pattern, and inputting and outputting electrical signals between the contact of [[said]] the test head and [[said]] the image sensor in accordance with [[said]] the input pattern.

16. (Currently Amended) [[A]] The test method for an image sensor as set forth in claim 14, further comprising sorting tested image sensors based on the device type information obtained ~~at said imaging step in testing the inverted image sensor~~ and classification information of the test results.

17. (Canceled).

18. (New) An image sensor test system configured to bring input/output terminals of an image sensor into contact with a contact of a test head, the image test system configured to emit light to a light receiving surface of the image sensor from a light source and, while doing so, inputting/outputting electrical signals between the contact of the test head and the image sensor so as to test the optical properties of said image sensor, the image sensor test system comprising:



a pre-test sensor stacker configured to store image sensors before testing;

a first inverter configured to invert an image sensor supplied from the pre-test sensor stacker so that the light receiving surface of the image sensor faces downward;

a contact arm configured to pick up and move the inverted image sensor inverted by the first inverter, the contact arm being configured to bring input/output terminals of the inverted state image sensor into electrical contact with a contact of the test head;

a second inverter configured to invert an image sensor after testing so that the light receiving surface of the image sensor faces upward; and

a plurality of post-test sensor stackers configured to store tested image sensors inverted by the second inverter.